

# COST and MANAGEMENT

THE OFFICIAL JOURNAL OF  
THE CANADIAN SOCIETY OF  
COST ACCOUNTANTS & INDUSTRIAL ENGINEERS

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R. Dawson, R.I.A., F.F.C.S., F.C.I. (Eng.), Secretary-Manager and Editor

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at 25 cents each.

## • EDITORIAL •

### Another Mix-Up

All we know is what we read in the papers but if what we do read is true Industrial Accountants are in for more severe headaches. The merging of Cost of Living bonus with basic wages is the cause of endless trouble and we now learn that at the forth-coming session of the Ontario Legislature, the Government will endeavour to enact legislation dealing with hospitalization insurance. Presumably this means another deduction at the source from wages and salaries and just to show that this is not the end by all means, we read that the Dominion Government will shortly bring down an "act" relating to health insurance which will mean still another deduction from wages and salaries.

Ever since the commencement of the war, the Government has consistently added one straw after another and apparently the end is not yet. Shortly, we expect to see another "act" dealing with old age pension insurance which would mean still another deduction.

It is apparent that the whole matter of social security legislation should be consolidated under one authority and with one deduction at the source. This would not alone lessen the work of the industrial accountant, who is already hard-pressed, but would make for increased efficiency and lower cost administration and would, therefore, result in a lower cost of such security to employees to say nothing of employers.

Apparently, we have not yet settled the question as to whether the Provincial or Dominion Government should control matters pertaining to Social Security. Isn't it high time that this question was determined once and for all thereby doing away with the constance friction between Provincial and Dominion authorities and with the idea of separate authorities for each branch of Social Security. It seems to us that if a little common sense were used, we would avoid such mix-ups as the one we have outlined and we believe that the majority of people would have a little more confidence in those who legislate supposedly for our benefit.

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### Across the Secretary's Desk

Many things have happened since the last issue of "Cost and Management". First of all a new chapter has been organized in Calgary, Alberta, and the membership of the Edmonton chapter has been greatly increased. In November I travelled west in connection with the proposed Incorporation of the Alberta Society in order to secure degree powers in that Province. The necessary Private Bill in this connection will come before the next session of the Legislature in Edmonton and we are very hopeful that it will

## COST AND MANAGEMENT

be passed. This trip west, while hurried, was a really splendid trip and much good was accomplished. As stated, a new chapter was organized in Calgary with a starting membership of about twenty-five and in both Calgary and Edmonton we had grand meetings. I then travelled to Vancouver and again we had a splendid meeting with over forty present and quite a number of new members will accrue, in fact many have already signed up. It was a delight to meet again such old friends as Alvin Tupper, Fred Sutcliffe, Bill Evans, Charley Kehoe (now in the Air Force) and many others in Edmonton and Jack Irving, Murray Gilmour, Bruce Robinson, Ray Lucas and "J. H." Asquith in Vancouver. The Vancouver chapter is being re-organized and already quite a number of really capable men have joined our Society there. Since returning east I have attended swell meetings of the Kitchener Chapter, held at Galt and of the Hamilton Chapter. Harold Wright spoke at Galt and Alex Blanchard at Hamilton. I have word of another grand meeting at Niagara Falls where our Dominion President, "Hal" Hetherington spoke before about fifty or sixty members. "Hal" and I are going to Quebec and Montreal late this month for two meetings. "Hal" has already visited London, Windsor, Niagara and the Bay of Quinte Chapter and will go to Kitchener later this month. He then has several other chapters to visit and is really making a wonderful contribution. Please accept my apologies for the fact that the year book was so late. It entailed a lot of work and the fact that I was absent in the west, together with other difficulties over which I had no control was in a large degree responsible for its late arrival. However I hope you like it. Hope you had a swell Christmas and while somewhat belated here are my Very Best Wishes for a Happy, Prosperous and Victorious New Year.

R. D.

P.S.—Thanks for all the fine Christmas cards.

R. D.

## Personal Notes

All members, we are sure, will join with us in extending sincere sympathy to:

Paul Kellogg, L.C.M.I., Montreal, in the loss of his wife.

Frank E. Wood, R.I.A., Ottawa, in the loss of his wife, and

R. St. Onge, Montreal, in the loss of his brother.

Congratulations to:

H. M. "Hal" Hetherington, our Dominion President, on his promotion to Vice-President and Comptroller of the Viceroy Manufacturing Co. Ltd., Toronto, and to

J. W. "Jimmy" Hammond, popular Chairman of the Hamilton Chapter, on his appointment as Assistant General Manager of the Hamilton Hydro Electric System.

## COST AND MANAGEMENT

### New Members

#### COST AND MANAGEMENT INSTITUTE

C. N. Knowles, C.A., Montreal  
W. Wait, Can. Credit Men's Trust Assn. Ltd., St. John, N.B.  
C. G. Beausoleil, Montreal  
L. V. Gilbert, Crown Cork & Seal Ltd., Montreal  
R. J. Overall, Mount Royal Metal Co. Ltd., Montreal  
M. Y. Tisner, Unemployment Insurance Commission, Montreal  
P. Deland, Montreal L., H. & P. Cons., Montreal  
S. I. Lyman, Stevenson & Kellogg Ltd., Montreal  
G. A. Plante, Le Soleil Ltee, Quebec  
W. S. Chandler, Treasury-Cost Section, Montreal  
H. C. Telfer, Mowatt & Moore Ltd., Montreal  
G. Kostman, Defence Industries Ltd., Montreal  
F. Ashworth, Riddell, Stead, Graham & Hutchison, Montreal  
A. Smibert, C.A., Creak, Cushing & Hodgson, Montreal  
R. Robert, Quebec Provincial Government, Montreal  
L. Rhodes, Dominion Government, Montreal  
R. H. Bissell, Canadian Industries Ltd., Montreal  
P. Smith, Canadian Car Munitions Ltd., St. Paul d'Ermite, Que.  
R. A. Chislett, Compo Company Ltd., Lachine, Que.  
A. E. Boutin, Dominion Government-Treasury Office, Montreal  
W. H. Thompson, Sharp Milne & Co., Montreal  
J. A. Fuller, Shawinigan Chemicals Ltd., Montreal  
D. F. Pollock, Belding Corticelli Limited, Montreal  
H. C. Browne, Price Waterhouse & Co., Montreal  
A. S. Keiller, Sherwin Williams Co. of Canada Ltd., Montreal

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#### THE SOCIETY OF INDUSTRIAL AND COST ACCOUNTANTS OF ONTARIO

##### Toronto Chapter

T. A. Jamieson, Massey-Harris Co. Ltd., Toronto  
H. A. Keen, Premier Mfg. Co. Ltd., Toronto  
G. V. Farr, Viceroy Mfg. Co. Ltd., Toronto  
H. C. Carter, Excise Tax Dept., Toronto  
F. E. Janzen, Can. Elevator Equip. Ltd., Toronto  
H. Sutcliffe, Might Directories Ltd., Toronto.  
L. A. Mawson, Silverwood Dairies Ltd., Toronto.  
A. E. Sharpe, Silverwood Dairies Ltd., Toronto.

##### Bay of Quinte Chapter

R. C. Bastable, Peterborough Lock Mfg. Co. Ltd., Peterborough

##### Hamilton Chapter

F. B. Martin, Railway Power & Engineering Corp., Hamilton  
Miss Doris Hyde, Aerovox Co. of Can. Ltd., Hamilton  
Miss Ruth Harte, National Steel Car Co. Ltd., Hamilton  
Miss Cora MacKenzie, Canadian Porcelain Co. Ltd., Hamilton

## NEW MEMBERS

K. A. Yager, Family Packers Ltd., Hamilton  
G. M. Findlay, Can. Westinghouse Co. Ltd., Hamilton  
A. E. Deans, Wright-Pounder & Co., Hamilton  
J. F. Hayes, Income Tax Div., Dept. Nat. Revenue, Hamilton  
H. Adams, Can. Westinghouse Co. Ltd., Hamilton  
G. W. Allerston, Hamilton Bridge Co. Ltd., Hamilton  
D. A. Curry, Irvington Varnish & Insulator Co. Ltd., Hamilton  
A. G. Levan, Hamilton Bridge Co. Ltd., Hamilton  
R. W. McKenzie, Otis Fensom Elevator Co. Ltd., Hamilton  
J. Hirschland, United Carr Fastener Co. Ltd., Hamilton  
J. Jekel, Barrington Rubber Co. Ltd., Oakville  
J. Lowes, Glendale Spinning Mills Ltd., Hamilton  
P. Higgs, Silverwood Dairies Ltd., Hamilton  
A. C. Lyons, Silverwood Dairies Ltd., Hamilton  
J. C. Lord, International Harvester Co. Ltd., Hamilton.

### Niagara Chapter

J. A. MacNeill, St. Catharines Steel Products Ltd., St. Catharines  
W. D. Scobie, Silverwood Dairies Ltd., St. Catharines  
N. Plaff, Silverwood Dairies Ltd., St. Catharines  
F. L. Stout, Thompson Products Ltd., St. Catharines, Ontario.

### Kitchener Chapter

E. S. Powell, Silverwood Dairies Ltd., Kitchener  
K. Wilkins, Silverwood Dairies Ltd., Kitchener  
H. Durst, Dominion Electro Home Industries Ltd., Kitchener  
E. W. Gillespie, Waterloo Mfg. Co. Ltd., Waterloo  
J. Bregman, Geo. Pattinson & Co. Ltd., Preston.

### London Chapter

J. D. Lowry, Taylor Electric Mfg. Co. Ltd., London  
E. C. Grimes, Cypsum Lime & Alabastine Co. Ltd., Beachville  
W. L. Davis, C.A., John Labatt Ltd., London  
C. G. Garrison, Silverwood Dairies Ltd., London  
T. Scarsbrook, Silverwood Dairies Ltd., London  
J. W. Long, Empire Brass Mfg. Co. Ltd., London

### Windsor Chapter

T. Voisey, Canadian Industries Ltd., Windsor  
R. D. Hewitt, British American Brewing Co. Ltd., Windsor  
G. Appleby, Silverwood Dairies Ltd., Windsor  
W. Lamb, Silverwood Dairies Ltd., Windsor

### Ottawa Chapter

A. F. Taylor, Stevenson & Kellogg Ltd., Ottawa  
A. Mack, R.C.A.F. H.Q., Ottawa  
R. W. Mitchell, Continental Paper Products Ltd., Ottawa

### Fort William-Port Arthur Chapter

F. H. Black, F.C.A., Port Arthur  
Col. C. Hunter, Port Arthur  
A. M. George, Dom. Income Tax Dept., Fort William  
D. Murdock, Northland Machy. Supply Co., Fort William  
D. C. Gerrard, Mount McKay Feed Co., Fort William

## COST AND MANAGEMENT

G. Scott, Western Engineering Services, Fort William  
Howard Britten, International Transit Ltd., Port Arthur.

### Non-Resident

D. Davidson, Maitland Spinning Mills Ltd., Listowel, Ont.  
J. N. Payne, Kingston, Jamaica, B.W.I.  
M. T. Saville, Canadian Comstock Co. Ltd., St. John, N.B.

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## CANADIAN SOCIETY OF COST ACCOUNTANTS AND INDUSTRIAL ENGINEERS

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### Edmonton Chapter

J. F. Daly, Aircraft Repair Ltd., Edmonton, Alta.  
R. N. Gibb, Aircraft Repair Ltd., Edmonton, Alta.  
G. Hollingshead, Univ. of Alberta Hospital, Edmonton, Alta.  
L. Radshad, Univ. of Alberta Hospital, Edmonton, Alta.  
C. R. Bowerman, Brown Fruit Co. Ltd., Edmonton, Alta.  
F. C. Murray, The T. Eaton Western Ltd., Edmonton, Alta.  
G. S. Langlands, Northern Box Co. Ltd., Edmonton, Alta.  
M. J. Krenz, Tar Sand Roof Products, Edmonton, Alta.  
J. Villeneuve, Wheat Acreage Dept., Dom, Government, Edmonton, Alta.  
S. Morris, Provincial Income Tax Dept., Edmonton, Alta.  
H. J. Rauch, J. C. Burger Lumber Co. Ltd., Edmonton, Alta.  
Jos. H. Green, Dept. of Municipal Affairs, Prov. Govt., Edmonton, Alta.  
R. Forrest, Edmonton Cold Storage Ltd., Edmonton, Alta.  
A. W. Mohr, Dominion Income Tax Dept., Edmonton, Alta.  
Miss G. M. Wilson, M. D. Muttart Lumber Co. Ltd., Edmonton, Alta.  
A. R. Kirkwood, Aircraft Repair Ltd., Edmonton, Alta.  
E. G. Ellerton, The Ogilvie Flour Mills Ltd., Edmonton, Alta.  
T. H. Hunt, Northwest Brewing Co. Ltd., Edmonton, Alta.  
J. M. Anderson, Aircraft Repair Ltd., Edmonton, Alta.  
J. H. Meanwell, Aircraft Repair Ltd., Edmonton, Alta.  
J. Shortell, W. R. Menzies Limited, Edmonton, Alta.  
V. Dodds, MacDonalds Consolidated Ltd., Edmonton, Alta.  
S. A. Gray, Imperial Oil Ltd., Canol Project, Edmonton, Alta.  
Jas. Galt, Royal Fruit Co. Ltd., Edmonton, Alta.  
R. H. Chisholm, Swift Canadian Co. Ltd., Edmonton, Alta.  
T. M. Diamond, Imperial Oil Ltd., Canol Project, Edmonton, Alta.  
Miss Helen McKinley, M. D. Muttart Limited, Edmonton, Alta.  
W. A. T. Lunery, Dominion Income Tax Dept., Edmonton, Alta.  
L. Dallison, Marshall Wells Alta. Co. Ltd., Edmonton, Alta.

### Calgary Chapter

T. R. Humphries, Alberta Wheat Pool, Calgary, Alta.  
C. D. Green, Independent Biscuit Co. Ltd., Calgary, Alta.  
A. Galger, Canadian Bakeries Ltd., Calgary, Alta.  
H. H. Hutton, Burns & Co. Ltd., Calgary, Alta.  
R. D. Scott, Treasury Representative, Dept. of Finance, Calgary, Alta.  
A. E. McNeil, The Royal Trust Company, Calgary, Alta.  
L. T. Rosling, Revelstoke Sawmills Co. Ltd., Calgary, Alta.  
F. A. Montgomery, Canadian Utilities Ltd., Calgary, Alta.

## AUDITING OF GOVERNMENT SUB-CONTRACTS

A. J. Bartle, 328A-8th Avenue West, Calgary, Alta.  
C. R. Holt, Motor Car Supply Co. of Canada Ltd., Calgary, Alta.  
C. W. J. Evans, Goodyear Tire & Rubber Co. Ltd., Calgary, Alta.  
W. J. Clapham, Massey-Harris Co. Ltd., Calgary, Alta.  
C. M. Raeper, McColl-Frontenac Oil Co. Ltd., Calgary, Alta.  
J. Payne, Dominion Gas & Electric Co., 215-6th Avenue West, Calgary, Alta.  
F. Fallwell, Burns & Co. Ltd., Calgary, Alta.  
F. A. Smith, C.A., Canadian Western Natural Gas, Light, Heat & Power Co. Ltd., Calgary, Alta.  
Mr. L. McPhee, Can. Western Natural Gas, Light, Heat & Power Co. Ltd., Calgary, Alta.  
Mr. W. Nobbs, Succession Duties Branch, Dept. of Natl. Revenue, Calgary, Alta.  
Mr. E. E. Nott, Natl. Petroleum Co. Ltd., 401 Leeson Lineham Block, Calgary, Alta.  
Mr. T. J. Ougden, Union Packing Co. Ltd., Box 159, Calgary, Alta.  
Major R. B. Strange, Chief Audit Officer, M.D. No. 13, Calgary, Alta.  
Mr. J. W. Randall, R. B. Strange & Co., 39 Union Building, Calgary, Alta.

### Vancouver Chapter

P. Russell, Evans, Coleman & Evans Ltd., Vancouver  
N. Terry, Can. Sumner Ironworks Ltd., Vancouver  
K. Mason, Can. Sumner Ironworks Ltd., Vancouver  
N. Abramsen, Burroughs Adding Machine Co. Ltd., Vancouver  
J. R. Grimmer, B. C. Distillery Co. Ltd., Vancouver  
F. G. Coburn, C.A., Treasury-Cost Section, Vancouver  
N. J. C. McKinnon, Treasury-Cost Section, Vancouver  
H. H. Garfield, Treasury-Cost Section, Vancouver

## Auditing of Government Sub-Contracts

By F. E. WOOD, R.I.A.

Chief Cost Accountant

Treasury—Cost Section, Ottawa

In an article under the above heading which appeared in the November issue of "Cost and Management," an unfortunate error caused a part of the article to be left out, thereby spoiling the text of this article.

We append herewith the missing part of the article and this should have been inserted after the following paragraph on page 296 of our November issue:

"Following receipt of this data which is collated to show all such work being done by a given sub-contractor, the following circular is forwarded to the sub-contractor.

DEPUTY MINISTER OF MUNITIONS AND SUPPLY

Ottawa, Canada

Dear Sirs:

Re: Sub-Contract Work on Government Contracts

We are advised that you have carried out, or are carrying out, work as follows:

Main Contractor Name and Address	Contract No. of Description	Your 1941 Billings (Approximate)	Estimated Total Billings
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## COST AND MANAGEMENT

For your information, we are attaching a copy of Order-in-Council No. 9159 which you will note stipulates that the Minister may require an audit, etc., of your costs on this work.

In order that such audit may be carried out with the least inconvenience to you, it may be possible to arrange for the services of your regular auditor to investigate and report your costs and profit margin on the particular work involved.

Should we request such special audit to be performed by your auditors, the cost of such audit will be paid for by the Government, and will not be a charge to you.

As you will doubtless be glad to co-operate in order to get this essential work completed as promptly as possible, will you kindly advise by return mail the name and address of your auditors.

Yours very truly,

W. F. WILLIAMS,  
Executive Assistant.  
(Financial)

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On receipt of his reply the Department then issued the following unless it is decided to have the audit performed by Treasury Cost Accounting Division, as for example when the firm in question is already being audited by our staff:

File:

Date:

RE:

Dear Sir:

We have been advised by the above Company that you are its auditor. The Company is engaged in carrying out the following sub-contract:

Prime Contractor      Locale of Work      Subject Matter  
and its costs of carrying out such sub-contract are subject to audit on behalf of this Department.

It is our desire that such audit be made and that the costs of carrying out of such contract be investigated and established by you pursuant to Order-in-Council P.C. 455, copy of which is enclosed.

Your statement regarding the costs of carrying out the work must be made up in conformity with the Departmental Costing Memorandum, Form M & S 433, and your investigations should be conducted along the lines laid down by Mr. F. E. Wood, Chief Cost Accountant, Department of Munitions and Supply. You are, therefore, requested to communicate immediately with Mr. Wood, whose address is 375 Wellington Street, Ottawa, who will advise you in detail as to the information required. After your investigations are completed, your report should be made to Mr. Wood, and all working papers in connection with your investigation should be forwarded to him.

I should be obliged if you would forward to me, in order to complete my file, a copy of your letter to Mr. Wood.

Your attention is drawn to paragraph (3) of P.C. 455 enclosed herewith, which provides that your reasonable remuneration for performing the services herein referred to will be paid by the Crown.

It is understood that the right is reserved to the Honourable the Minister

## AUDITING OF GOVERNMENT SUB-CONTRACTS

of Munitions and Supply to make such independent investigations and inquiries as may be deemed advisable.

Yours very truly,

W. F. WILLIAMS,  
Executive Assistant.  
(Financial)

On acknowledgment by the auditor the Treasury Cost Division then write the auditor—  
To Company Auditors

Subcontract Work	Re: Subcontractor —	Prime Contractor	Nature of Work
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Gentlemen:

In reply to your letter dated \_\_\_\_\_, I am enclosing a duplicate, Audit Instruction, Cost Audit Questionnaire and M & S Form 433, which will afford you essential information necessary to carry out this audit.

It is suggested that insofar as possible, your report should cover the total requirements of the designated prime contract. In the event that the subcontract did not terminate prior to the close of the subcontractor's last fiscal year, then your audit should cover a period which will coincide with the closing date of the nearest complete accounting period. If an interim audit is contemplated, then kindly communicate with us before proceeding. Your letter should set out pertinent fact and information to enable us to instruct you as to the advisability of carrying out the audit prior to the completion of the work.

After consulting with your client, will you please advise when it is your intention to conduct the necessary cost audit, what period will be covered, and your estimate of the time and expense involved. Any correspondence regarding these points should be addressed to this office.

In submitting the results of your cost audit, it will be necessary for you to issue a separate report, covering the subcontract costs applicable to each prime contract. Copies of these reports should be submitted with your working papers through our office.

Should you wish any further advice during the course of the audit, I would refer you to our District Supervisor, whose address is

Yours very truly,

For F. E. WOOD,  
Chief Cost Accountant.

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DOMINION OF CANADA  
DEPARTMENT OF FINANCE — COMPTROLLER OF THE  
TREASURY BRANCH  
Treasury — Cost Accounting Division  
Audit Instructions

(To be used regarding the audit of sub-contracts, conducted by independent auditors by virtue of the authority granted under Order-in-Council—P.C. 455)

It is essential that a permanent record of all audit work be maintained — therefore, when carrying out a Cost Investigation always remember that

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you on the job have all the information — so as a matter of record provide all essential information.

To this end and as a guide to the audit staff, the following has been prepared:

### WORKING PAPERS

For uniformity and convenience in review, working papers should be clear and concise and indexed alphabetically, as follows:

- A.A. Finished Papers
- B.B. General Data — This will include:
  - 1. Cost Audit Questionnaire (Programme) and General Notes
  - 2. Extracts from Contract or Acceptance of Tender, etc.
  - 3. Interviews with Company representatives
- A. Labour
- B. Material
- C. Overhead

Additional letters may be used to indicate Production Reports, Inventory data or such other matters as may be of substantial volume and importance.

Further to the above, all sheets should be numbered consecutively under the respective letters, **with the first sheets reserved in all cases for summary, adjustments, and conclusions.**

In compiling finished papers on an audit, the final figures should be "keyed in" from the source from which they are brought forward. Strict adherence to this practice in respect to all important figures greatly reduces time required for final review and future reference by senior officers.

The working papers should include the cost summary and supporting schedules supplied by the sub-contractor, and a reconciliation with the costs as determined by you. Our principal function is to examine and audit — not to compile cost records. The sub-contractor should be informed as to what is required from him and the audit work should commence when such figures have been submitted by him. At the completion of the audit it is advantageous to have the sub-contractor concur in the findings.

In compiling working papers, it is essential that your analysis should not only show differences due to extraordinary costs, but that satisfactory explanation should be obtained and recorded in the working papers to explain the reasonableness of allowing (or disallowing) questionable items.

### COST AUDIT QUESTIONNAIRE

Since we are required to forward to the Auditor General's Department the completed Cost Audit Questionnaire, it is necessary that **all** questions be answered. If the questions asked do not apply, some notation to this effect should be inserted.

### FINISHED REPORTS

1. Preparation of finished reports is the most important phase of the work of the audit staff. In order to do justice to the effort expended in the detail examination of costs, the greatest care should be exercised to set down the results of the audit in a clear and concise manner,

## COST AND MANAGEMENT

readily understandable to the negotiating officers and other interested persons.

2. Reports should be prepared in accordance with the terms of the sub-contract and as required under the conditions of M & S Form 433. In connection with the latter and contentious matters arising therefrom, please refer directly to the Chief Cost Accountant for opinions and rulings. Verbal inquiries, on routine matters, may also be directed to any of the Supervising Cost Accountants located at the Cost Division Branch Offices in Calgary, Halifax, Montreal, Toronto, Winnipeg and Vancouver. However, all requests for final rulings from the Chief Cost Accountant should be held in abeyance until the completion of the audit at which time a written request should be made to him at Ottawa.
3. The finished report should show final costs under the following headings:

- (1) Labour
- (2) Material
- (3) Overhead

(Note) Special Depreciation (War Contracts Depreciation Board Awards) must be shown as a separate item under this heading.

Additional headings may be shown for items which cannot be properly classified under any of the above headings, e.g., freight out, sales tax (if any), etc.

4. The finished report should be concluded by the Auditor's certificate which should be worded as follows:

"I hereby certify that, in accordance with the authority provided under Order-in-Council P. C. 455, I have made an examination of the accounts and records of the sub-contractor insofar as they pertain to the above production (Description of article may be inserted if practical), and I have received all the information and explanations I have required, and that (if qualifications are necessary put in here "subject to .....") the amount of \$..... per ..... is the fair cost thereof arrived at by the application of the principles laid down by M & S Form 433 as shown by the accounts and records and the information and explanations given to me."

The auditor's certificate contained in the report may be qualified as indicated above wherever exception is taken either to the method of computing costs which have been submitted for audit or in the amounts as reflected in the final figures contained in the report.

5. Where it is not possible to give a certificate due either to lack of adequate records or for some other good reason, then no attempt at certification should be made. However, adequate reasons for inability to certify should be stated in the finished report.
6. In addition to the summary of cost (see 3 above), it is requested that the finished report contain the billing price, exclusive of freight out and sales tax charged in invoicing to the prime contractor, as shown by the records of the sub-contractor and verified directly with prime contractor.
7. In addition to the certificate which is required from the independent

## AUDITING OF GOVERNMENT SUB-CONTRACTS

auditor, it is also necessary for the Chief Cost Accountant to attach an additional Certificate or approval. Since this work involves a certain amount of analysis to be done by Cost Division senior officers, it is necessary that **all relevant information and working papers** accompany the original report.

### GENERAL

The co-operation of all outside auditors is sought in obtaining uniformity in the preparation of working papers. It will expedite matters to follow a procedure which will lend itself readily to interpretation and which is common to all.

It is not intended that the auditor should take on the functions of "Production Engineers," but on every investigation the Accountant should take note of whether or not the plant seems to be running efficiently. Where considered necessary, a separate memorandum on this point should be sent in with the working papers and especially where there is any evidence or increased production costs due to inefficiency. Reference may be made through the Chief Cost Accountant either for the assistance of a Senior official of this Division who is versed in these matters, or to the Production Branch of the Department of Munitions and Supply for other technical advice, if and when required, prior to the issuance of the final report. If the costs appear excessive, qualification should be made in the certificate to deal with the cost factors which are considered to be not properly determinable (reference to production of like articles by other manufacturers may form a guide in the judging of such matters).

In some cases it may be desirable to refer questionable points to the Chief Cost Accountant for opinions and rulings; also this assistance is to be taken advantage of at all times in order that difficult situations will not develop to affect the position of the auditor with his client.

F. E. WOOD,  
Chief Cost Accountant.

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### DEPARTMENT OF FINANCE — COMPTROLLER OF THE TREASURY BRANCH

#### Treasury — Cost Accounting Division Cost Audit Questionnaire

(To be used regarding the audit of sub-contracts, conducted by independent auditors by virtue of the authority granted under Order-in-Council—P.C. 455)

This Questionnaire should be completed and returned to the Chief Cost Accountant together with any further comments which may be deemed necessary information in connection with the audit work performed.

This cost audit questionnaire does not limit the work to be performed in examination of costs, or supersede the information and cost finding reports to be written and certified to the Chief Cost Accountant. The questionnaire embraces information and verification requirements only; it will form a report on the programme carried out in examination of costs, and generally will ensure that all questions which may concern costs are reviewed and dealt with. In necessary cases, however, the field audit must

## PRIME MATERIAL CONTROL

be expanded to obtain any supplementary essential information and such additional work should be recorded under the appropriate title on separate sheets to be attached at the end of the questionnaire.

The sub-contractor will be requested to prepare and submit statements together with any supporting schedules and it should only be necessary to audit such prepared costs in carrying out the field audit — if more than this is deemed necessary, separate authority must be obtained before proceeding at length.

In addition to this Questionnaire it is imperative that adequate working papers should evidence the audit work performed, the information and explanations obtained and the method by which the final results are obtained. In this connection please refer to "Audit Instructions" memorandum for further information.

In some cases it may be desirable to refer questionable points to the Chief Cost Accountant for opinions and rulings prior to the issuance of the final report; also this assistance is at all times to be taken advantage of in order that difficult situations will not develop affecting the position of the auditor with his client.

Chief Cost Accountant.  
F. E. WOOD,

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## Prime Material Control Without the Use of Detailed Perpetual Inventory Methods

By Harry E. Clayton, C.A., R.I.A.

The purpose of this brief article is to bring to the foreground, for discussion purposes, the question of whether or not material control can be achieved without the use of the generally accepted perpetual inventory records.

It is the writer's opinion that control of prime materials can be readily effected without these records for all products which are manufactured on a mass production basis. However, it is not practicable to adopt this procedure for stock which is consumed in the production of individual custom-built articles, as the effort is, generally speaking, at least as great as that required to operate detailed perpetual inventory records because of the necessity of developing a bill of material for each specific order. Furthermore, as the title indicates, the remarks contained herein do not apply to the control of factory supplies, as the difficulty of estimating the life of some of these supplies necessitates the use of the regular stores records. The justification for this essay, however, lies in the fact that the greater portion of materials purchased by industry become the prime materials of mass production, and it would therefore appear that much effort could be eliminated if the perpetual inventory data relating to such materials could be dispensed with.

Before reviewing the method by which these records can be eliminated, attention is directed to their chief disadvantage, which is, in my opinion, the large expenditures of time and money required in relation to the benefits derived therefrom. Due to the tremendous volume of detailed work required on these subsidiary records, it has been the general policy of

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industry to direct the work of the lower-paid employees along these channels, in order to reduce the cost of maintaining such records. In many instances, the results of this procedure are clearly indicated in the unsatisfactory manner in which the data is accumulated. This state of affairs, however, is generally not fully known to management until a complete and accurate physical inventory is taken and a discrepancy noted between the physical count and the book quantities, at which time a decision must be made as to whether or not—

- (a) the book work previously performed should be all re-checked, in order to substantiate or prove the inaccuracy of the existing book records, or
- (b) the recording of book quantities should be taken as read.

Irrespective of which procedure the management follows, the results will not be entirely satisfactory. Suppose it is decided to re-check the subsidiary inventory data, and that after making the necessary corrections a difference still exists between it and the physical count; the revised book figures have now been substantiated, and the difference must, of course, be the result of shrinkage in stock due to pilferage, providing all wastage and over-run factors have been properly computed and duly recorded. (Note that if both the perpetual inventories and the physical count are correct, no inventory overage can occur). The management can therefore only adjust the quantity records, value the loss relative thereto which must be written off against operations, and endeavour to enforce a more rigid physical control in the future, in order to stop such pilferage, which is, to a large extent, a case of "locking the stable after the horse has been stolen". If the second course of action is taken, results insofar as the difference is concerned are the same, except that the management will not know whether the difference is attributable to the incorrect recording of book quantities, pilferage, or a combination of both factors, as the book records were not re-checked to substantiate their accuracy.

The use of perpetual inventory records also presupposes the operation of stores requisitions which are individually posted to such subsidiary records, while the accumulated total dollar value of same forms the basis for any entry in the general books of account. Under this system the authority for requisitioning the materials, and charging them against specific jobs, generally lies with the foreman in charge, who, in the course of his routine job, may tend to approve such requisitions in an automatic manner, with the result that more materials may be requisitioned for a job than are actually needed. What sort of control can the management exert over this state of affairs? For example, let us suppose that it requires ten units of material to make an order, yet the foreman approves the requisitioning of fifteen units. How will the management be aware of this situation unless it keeps a bill of material for each job, so that it may determine the number of units required. This brings us to the point in question. If a bill of material is kept, then it is my opinion that the maintaining of both the docket system and the perpetual inventory records results in a duplication of work which cannot be justified.

A successful material control can, in the writer's opinion, be maintained by the correct development and use of production reports and bills of material providing they are adequately supported by a rigid physical control of the

### PRIME MATERIAL CONTROL

material. The operation of this procedure in its most simplified form is effected in the following manner:

- (a) Materials purchased or manufactured are accumulated in one material account in which they remain until they are sold
- (b) These sales are relieved from the above account and charged to cost of sales on the basis of a priced bill of material
- (c) The quantity and type of material rejected in manufacturing operations is obtained from the production reports, priced from the aforementioned bill of material and relieved from the material account by charging an appropriate expense or cost of sales account depending upon the circumstances of the particular case
- (d) The balance remaining in the material account represents the value of raw material, material in process, and material in finished production still on hand.

The quantities of any specific type of material that should be on hand can be readily determined by taking the total of such stock purchased and manufactured and deducting therefrom the total of same which has been absorbed in products sold and rejected. For example let us suppose that on December 31, 1942 a physical inventory showed that there were 100 net tons of material "A" on hand and that the total purchases of same for the six months ended June 30, 1943 amounted to 50 net tons. A review of the company's month-end entries for the same six months indicates sales and rejects to be as follows:

Products	No. of Units Sold	No. of Units Rejected	Total (Sales and Rejects)
D	300	10	310
E	400	30	430
F	200	5	205
G	700	55	755
H	1000	100	1100
I	5000	400	5400

Perusal of the various bills of material show that the quantities of material "A" required per unit of product are:

Product	Quantity of Material Per Unit of Product
D	10 lbs.
E	20 lbs.
F	Nil
G	20 lbs.
H	50 lbs.
I	10 lbs.

It is therefore obvious that the total material "A" absorbed in sales and rejects during the six months ended June 30, 1943 amounts to 67.9/10 net tons, details of which are as follows:

Re Product D	10 lbs. x	310	=	3,100 lbs.
E	20 lbs. x	430	=	8,600 lbs.
F	Nil		=	Nil lbs.
G	20 lbs. x	755	=	15,100 lbs.

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H	50 lbs. x 1100	=	55,000 lbs.
I	10 lbs. x 5400	=	54,000 lbs.

135,800 lbs. or 67.9/10 net tons

Deducting the above consumption of 67.9/10 net tons from the inventory plus purchases leaves 82.1/10 net tons that should be on hand either in raw stock, work in process or finished units. The exact stage of production in which the material actually is located can, of course, be determined by a mathematical calculation of the necessary data recorded on the production reports and bills of material similar to the one shown above.

If management desires to keep a book segregation of inventories according to the various phases of realizability, this can readily be accomplished with comparatively little additional work by:

- (a) Charging all material purchases to a raw material account which can be relieved periodically by the use of one blanket requisition for all materials put into process during such period as developed from the production reports and bills of material
- (b) Relieving the material process account on a bill of material basis for all finished units as indicated by the production reports and charging an appropriate finished goods account
- (c) Debiting the material reject costs to an appropriate expense or cost of sales account, depending upon the particular circumstances of the case, and crediting the material process account. As previously stated, the quantity and type of material rejected during the manufacturing operations is obtained from the production reports and priced from the aforementioned bill of material
- (d) Charging cost of sales and relieving the finished goods account in the regular manner.

Some may say that the procedure outlined above necessitates the maintaining of bills of material and production records which would not be required if the regular detailed perpetual inventory records were in use and that, therefore, the saving in clerical services is negligible. With this line of thought the writer cannot agree because, as previously stated, the development of such data is a prerequisite to efficient management control irrespective of whether or not perpetual inventories are in use. A portion of the effort thus saved can generally be well utilized in effecting a more rigid physical control over materials because, in the final analysis, the ultimate success of any stock control system depends upon the efficiency with which this phase of the work is carried out.

Under the material control system reviewed above, prime materials are generally purchased in "lots" which will be consumed in the production of a specified number of finished units of production although deliveries may be received on a "piece meal" basis as they are required in the plant. Furthermore, purchases are only made after conferring with the production planning department as to anticipated production during the current season. This correlation of purchases and production consequently curtails, to a large extent, the possibility of plant shut-downs due to lack of material. In addition, shortages automatically come to the fore so that the proper corrective measures can be applied to "leakages" or "wastages" as they occur.

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The aforementioned principles have all been successfully applied in practice. In one instance a large concern found it necessary to dispense with perpetual inventory records because:

- (a) The costs of maintaining such records were becoming prohibitive
- (b) Their accuracy could not be depended upon and this, coupled with the fact that it did not seem to be possible to keep them up to date, rendered them useless in so far as the determination of purchase requirements was concerned.

This firm then adopted a system similar to the one outlined above, and since that time have had annual inventory adjustments ranging from one and one-half per cent to one fortieth of one per cent of the inventory valuation. Furthermore, purchasing efficiency has increased, whereas the clerical cost of controlling materials has considerably decreased.

In closing, I would like to point out that the system outlined above can be applied in its various aspects to numerous situations. For instance, it is sometimes found advisable to record all purchases of prime materials on the books at a standard cost. Under this method, price variances, which are created and are allocated to inventories and cost of sales on a pro rata basis in order to arrive at the actual cost relating thereto. It should be noted, however, that the variances applicable to the above costs are not entered in those accounts but are recorded in separately designed price variance accounts. The inventories are, therefore, always shown separately in the records at standard cost and, consequently, when an accurate physical inventory is taken and valued at such standard, the adjustment necessitated between the book records and the valuation of the physical count is truly an inventory adjustment and not a combination of both an inventory and price adjustment, as is usually the case. However, the major advantage lies in the fact that the prices on the bills of material, which are used for costing purposes, are not subject to continual revision, so that once a bill of material is developed and valued at the standard cost figures, no further work is required in connection therewith until either the standard cost or the bill of material is changed.

Note:—The opinions expressed in the foregoing article are those of the writer and are not necessarily endorsed by any Department of the Government.

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## Cost in the Pulpwood Industry

An Address Before the Cost and Management Institute, Montreal,  
on Oct. 29, 1943, by W. T. Bennett, Assistant Treasurer,  
The Brown Corporation, Quebec, P.Q.

Before going into detail concerning any practical system of accounting for a logging operation, I would ask you to consider some of the more important steps in this industry and feel sure you will agree with me when I say that this work requires a special and perhaps a rather complicated system of accounting.

We have to consider that logs and pulpwood are cut from the face of the earth, which time has shaped into many different valleys and hills; some

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of those hills being very high and rugged, while many of the valleys are deep and almost inaccessible. In addition, nature has grown many different kinds of trees and has covered this area with swamps, lakes and rivers, which may be covered with very deep snow one winter and not enough for good logging the next. Or, in other words, logging operations must contend with everything that nature has to offer, good or bad, for a successful operation.

We also must consider an investment of many millions of dollars in timberlands, which will be carried for as many years as we hope to continue manufacturing. This timberland must be protected from fires and many kinds of bugs, either of which can destroy vast expanses in a very short time. Such an investment must have a personnel of forestry engineers, land surveyors and cruisers, who are experts in this field, and know how to prepare working plans well in advance of the time when any operation must commence.

Next comes the logging engineer and his men, who must build the necessary roads, dams and other improvements so that the operator can actually get to work. They must also build storehouses, dwellings for the permanent staff, cook-houses, sawmills, shops, garages, camps for the contractors, and many other buildings which will be needed in this work.

A special purchasing department also enters into the picture, which must buy all the necessary equipment such as tractors, trucks, snowplows, boats of all kinds and many other tools. This department must also find and purchase provisions, feed, building material, camp furnishings, wangs, sleds and other supplies. The Purchasing Agent must be familiar with what is needed and have a desire to furnish what the operator orders and not what he thinks they should have on the job.

Now we come to the department which will actually cut the logs and get them to the mill on time. Here we have a Woods Manager and many assistants, who will contend with everything that good or bad weather has to offer. Jobs must be walked and either let to many different contractors, or arrange for company camps. Many scalers and inspectors must be on the job, who will be responsible for an accurate scale of all wood cut and see that all work is done in a workmanlike manner. Every jobber's or company camp must be carefully organized to save time and material. Roads, buildings, equipment and improvements must be kept in good repair; snow taken care of in the winter; mud in the spring and fall, and fires controlled during the dry seasons. Space does not permit telling about the many problems which the operators must overcome, but labor, wages and team work are some of the important ones. After the wood is cut and landed, we come to perhaps the most difficult part of the job, namely Driving. Driving is a headache even under ideal circumstances, which depend almost entirely upon the weather for success. Here is a job that cannot be delayed, for good driving conditions do not wait for any crew of men. It is a question of "Making Hay While the Shine Shines" and you had better make the most of good conditions, or you will leave logs back and that may mean no logs for the mill before another season comes around.

Prevention of accidents is another important question to be taken care of. They not only cost money, but every man laid off means that another must be found to replace him. Many operators and as many executives do

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not seem to realize that accidents are a needless waste of time and money, nor do they give sufficient thought as to the suffering of the men who are injured.

Last, but not least, we come to the Financial Department, which really is the one which makes the wheels go around. This Department must produce the capital and defray all expenses for the work described. Many operators can plan improvements which they think will save vast sums of money and probably, in most cases, they are right, but they little realize that the men in the Financial Department must also plan as to how this money can be made available, or if the investment is actually worthwhile over a term of years.

Now, let us talk about an accounting system which will give a good account of all this work we have briefly described. Any accountant employed in the logging industry can be thankful for his position, although, as I have said before, such a system may be rather complicated, but it is most interesting, especially if the accountant will take an active interest in the operating department, both by talking to the different operators and actually visiting the woods operations several times each year.

Such an accounting system must be built up through experience, and no accountant should attempt to organize such a system unless he has had some practical knowledge of logging, or is willing to accept help from the book-keepers and clerks who know their jobs.

Right here I would like to make a statement which I know many accountants will not agree with, for if they did, we would not have the friction which oftentimes exists, not only in this industry but in many others. For some unknown reason many accountants seem to think that the system comes first and the operating should be organized to conform to such a system. Such methods cause confusion and never give a true and intelligent statement of facts. Any operator ought to have the right to perform his work in an efficient and practical way and the accountant should follow the operator by keeping a good record of every step taken. By doing so, he may be able to collect facts which will show the operator that what he is doing is neither efficient nor profitable. Such a system must be flexible, so that extraordinary conditions such as storms, fire, labor and war will not throw it out of its orderly running. This is exemplified by the experience of every industry during the past few years. Any accounting system that can adjust itself to all the requirements of the different governmental departments and can answer the numerous questionnaires, keeping the proper statistics to cover the ones to come, is not only good, but should be given some kind of a medal for exemplary service under fire.

Starting at this point, I would like to tell you about a practical system for logging accounting. It is not my system but is the result of many years of experience of clerks in the bush, book-keepers, stenographers and auditors. It can be and is improved by new ideas and suggestions every year. I have seen this system in operation and have been interested to ascertain if it has any practical value to the operating department, and is not a mere statement of accounts backing up the wood costs. The statements prepared under this system, showing Jobbers' Costs, Toting, Boating, Road Construction and many others, are used by the Woods Manager and different men right down

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the line to the clerks in the bush. All such statements are available to anyone in the organization who has use for such information.

Any system must have some classification and I would suggest the following standard accounts:—

### Prime Costs.

**Jobbers' or Company Camps.**  
Charges for Storehouse  
Cost of Living Bonus  
Payrolls  
Insurance  
Time Bonus  
Fare Allowances  
Cash Balance  
Special Hauling Jobs  
Contracting and Estimating  
Scaling and Stamping  
Government Stumpage  
Depletion

### Driving

(Each Drive separated)  
Other Driving Costs  
Sorting  
Storehouse Expenses  
(Each Storehouse separated)  
Road Maintenance  
Toting  
(Separate account for each piece of equipment)

### Miscellaneous Accounts.

Boarding Houses  
Blacksmith and Machine Shops  
Care of Automobiles  
Care of Horses and Equipment  
Employment Expense  
Firewood  
Hospitals  
Launches and Boats  
Siding Rentals  
Telephone Expense  
Welfare

### Secondary Costs.

Depreciation Improvements  
Depreciation Plants and Office Equipment  
Club House Expense  
Cleaning Yards  
Forest Protection  
Fire Protection  
Forestry Expense  
Farming  
Ground Rents

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- General
- Liability Insurance
- Lighting Plants
- Maintenance of Camps
- Office Salaries
- Office Expense
- Power Houses
- Repairs to Buildings
- Superintendence
- Telephones and Telegrams

### Head Office Expense.

We must realize that any Logging Cost Statements, which do not tie in with the ledger, are of little use to anyone. Statements can be made covering toting, truck and tractor operating, road construction, bridges, dams, labor, supplies and many other accounts, but if such costs are not based on actual results, as shown by the final logging costs we check with the Trial Balance, then one of two things is wrong, either the accounting figures are so far out of line that they cannot be used in a practical way, or someone is making statements without verifying their information.

To obtain all this necessary information, it is very important that such a system should be served by a personnel that thoroughly understands the job. Some companies, and I would say nearly all of them, make the mistake of keeping the correct records in the wrong office. There is always a tendency towards too much centralization in some head office, which cannot have any personal touch with the actual men in the field. For instance, no intelligent man would advocate keeping a drive payroll in the head office, but we do find other work done there which could be efficiently taken care of in the branch offices. The clerk nearest the job will know more about it than one several hundred miles away, and by placing young men of ability on such jobs, an organization will be built up that will graduate men up the ladder and eventually every office will have a staff that will understand the operating end as well as their accounting department.

I now recall two men who started as clerks, not in any branch office but in the head office itself. They were gradually promoted until they became heads of two departments. The one in the Insurance Department wanted to know how many dogs were required to haul the wood at a certain operation? The one in the Credit Department wanted to know whatrossed wood was and when told that it was four-foot pulpwood wrapped in paper, he accepted the answer without comment. Neither one of these questions would have been asked had the two men graduated from the woods offices.

Of course, there must be a central office which will collect not only the accounts from the woods operations but those from all departments. Some department must complete the work and issue the final balance sheet, but the nearer that central office is to the mill and woods operations, the more the personnel of that office will understand what these statements are all about.

The most important part of any system of accounting is to obtain the necessary details, so that the final statement will give information which is accurate and dependable. Such information must come from the opera-

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tions, therefore, we must have certain forms and records to take care of this most important work. The man who keeps a little black book and posts every penny which he spends, will know at the end of the years where his salary has gone. It is the same in the woods. If we have a system which shows what became of every day's labor, where every article from the storehouse went, and who ate every meal from the cook-houses, then you can prepare any statement or combination of statements.

Actually only three key forms are needed in the bush in addition to the scale slips and tally sheets from the scaling department. There are:

1st—**Payrolls**:—One standard form of payroll should be used for the permanent men, construction and driving crews, and in the Jobbers' camps. This form should be prepared to give all information regarding money paid out for labor. It will give the name of the employee, number of and what days worked, rate of pay, and total amount earned, plus time and cost-of-living bonus. This payroll will also show all deductions, such as taxes, wangen and advances. Space will be provided for a balance column, which will be carried forward to the next month, or a settlement made during any period. Such statement will give complete information as to the quantity and cost of labor. In addition, special columns will be used in this payroll form showing the standard accounts to which the labor will be charged. Most operations have a tendency to crowd their payrolls rather than spread them out. I mean by this that special jobs should have separate payrolls and not carried in the one covering the permanent men. By having a special clerk and payroll for new construction jobs, different drives and mechanical equipment, we automatically analyze our labor costs for any present or future use.

Such a system of payrolls can be carried into the Jobbers' Camps and their clerks trained to follow the same system and give the amount of labor for the following work:

- Cutting
- Yard and Skidding
- Hauling
- Landings
- Road Construction
- Camp Construction
- Clerks and Foremen
- Cooks and Cookees
- Shop Work
- Firewood
- Toting
- Miscellaneous

2nd—**Storehouse Forms**:—Every purchase made for the woods operations should be charged directly to the Storehouse receiving such goods and, with the exception of purchases such as trucks, tractors, boats, or any other piece of equipment which will be capitalized, no purchases should be charged direct to any operating; all charges must come through the Storehouse. All freight, express, handling labor and toting will be charged to storehouse expenses, which, added to the original invoices, will give the cost price. We are now in the position to charge out the sales or transfers at either a cost price or at any percentage of profit.

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A Storehouse Form for charges should show quantities, rates and amounts. All charges will give the detail of every article, leaving that particular storehouse, and to what jobber or standard account same shall be charged. This same form will contain columns for the special standard captions such as:

Provisions  
Meals  
Wangin  
Camp Furnishings  
Tools  
Building Materials  
Truck, Tractor and Boat Supplies  
Other Supplies  
Dynamite  
Fuel Oil  
Lubricating Oil  
Feed

Or any additional account.

A running summary form can be kept of all the above charges and, at the end of each season, a total will be accumulated showing all the goods leaving the storehouse, which can be checked against the inventory plus purchases during the year.

This same form would be used in making any distribution of labor or meals, which cannot be charged direct from the payroll or meal sheets, and a special storehouse form would be used, which would have special columns, such as labor, toting, insurance, Jobbers, Time Orders, and any other account needed.

3rd—Charges for Meals:—We have now covered all charges or credits for labor and storehouses, which leaves the cost of meals to be accounted for. A form will be used, somewhat similar to a payroll form, which will give the name of the employee, number of meals received and date of each meal; the total number will check with the cook-house report of total meals served. Every person receiving a meal will pay cash, or have a ticket showing on what job he is working, and these tickets will give the necessary information for distribution.

The three forms, which I have explained, give a vast amount of information. They have been so arranged that endless analysis is not required. Copies may be sent to the Head Office for use and filing and as they do not take up much space, these records may be kept for years and special statements may be prepared as easily several years later as during a current year.

Now, let us investigate what the Head Office does regarding this system. I do not mean some Head Office miles away in the United States, but an office as near the job as is practicable, which will receive the reports from all the different woods operations.

This office will keep ledgers for Accounts Receivable, Payable and Jobbers. All purchase invoices will be entered in these books and this office should have the responsibility of paying such invoices. The said office has received all the information regarding storehouses, labor, boarding houses, wood cut and scales, with many other statements which have

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been prepared on the job. All this work in the woods has cut the number of personnel required in this central office, and such men and personnel required in this central office, and all such men and women who are there, have become experts in collecting and arranging facts for the trial balance and final statements. Most of the men are graduates from the woods operations and those who have not had this opportunity should be sent in to the woods several times each year on special jobs so that they will get a good idea concerning the actual work of making logs or pulpwood.

I have now explained a system which collects all the necessary information to be used by the central office in preparing final logging costs and other statements, such as those concerning Jobbers, truck or tractor toting, all kinds of construction, and many other statements.

Before explaining some of the Cost Statements and how they are prepared, I would say a few words concerning the records covering timberlands and depletion. Here we have a large permanent investment, which is the source of all logging operations, yet some companies cannot give a statement of original cost, nor do they have a complete record of stumpage cut. They have made so many adjustments on both sides that, at the present time, their timberland record does not mean very much.

It will pay any company to analyze its timberland accounts, find out what payments have been made and capitalized, plus expenses which have been added to this capitalization. This may entail much work, all depending on what records have been kept in the past. Perhaps some of the required records do not exist and much estimating may have to be done. No matter what shape the records are in to-day, some system should be started which will show, on one side, the original cost, and on the other, a record of the total depletion taken, covering stumpage cut from the lands. Probably some adjusting entries will have to be made to bring the depletion rate in line with the cost rate, as per book figures.

After the foregoing information has been obtained, it is only another step to open a timberland ledger, showing on one side the total acreage owned, estimated stumpage and present total cost. The other side will show the total stumpage cut, with value of depletion credited and the difference will be the book balance as per the Balance Sheet.

All titles to such lands should be kept in the same office and so filed that ready reference can be made to such deeds. Also the ledger accounts should be indexed so that the deeds behind such accounts can be found.

At the present time there is a tendency by the Income Tax Department to pay more attention to the depletion taken on stumpage cut each year; they are quite willing to accept book costs provided there has been no over-capitalization of expenses. They are also quite keen in seeing that timberlands are not over-depleted. If such a record is kept, it will save time, not only with Government Inspectors but with Company Auditors.

Now let us look at one or two important statements which can easily be made from all the detail received in the central office.

**1st—Jobbers' Contracts:**—I will not go into detail as to how a contract is let and a fair price established, except to say that the job is walked, each step in the operation is estimated and the total cost is arrived at; add a fair profit to this cost and we have a fair contract price, which the Jobber will probably accept.

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Here is where the accounting department can be of much assistance to the operating end. Each year they can prepare a final cost of each contract and that statement should follow the same procedure used when the contract was let. Such a statement will give the following facts:—

- Total contract in cords and price.
- Actual number of cords cut and landed.
- Jobbers' own labor, both by the day and the job.
- Such labor following the Company's standard accounts.
- Total charges to the Jobber divided as per the Standard Accounts.
- Balance due Jobber at end of season.
- Total horse labor.
- Jobbers' own costs.
- Balance will be net profit to Jobber.

If this statement is prepared each year for every Jobber, such information will be very valuable to the Operating Department in arriving at a fair price for future contracts.

2nd—Truck, Tractor and Boat Operating:—Here is a set of accounts which can run into vast amounts. It gives a detailed account of each piece of equipment to show where the high costs are and what should be done to avoid excessive operating and repair bills. I am of the opinion that all these costs should be charged to the different jobs, based on the average cost per day for operating, rather than to try arrive at the same end by some system of a rate per ton mile. Such a system would work without trouble if all the trucks operating on toting only and their runs were always between the same two points.

Now a few words about Storehouses and Inventories. The ideal way would be a perpetual inventory and a record which would show the actual inventory every day. Many such systems have been devised and some companies even claim that their system works. I have no doubt that such a system can be made to work successfully provided enough clerks are on the job and that each and every one of them is above the average and takes an interest in the job. However, I am rather inclined to think that the information thus acquired is not worth the cost. It is very easy to keep a running record of the larger goods, such as flour, sugar, hay, pork, etc., and this system will give the total of the different kinds of goods leaving the storehouse, and the purchasing department will have a record of what has been delivered. By taking an inventory once or twice a year, a fair idea will be obtained of any shortages.

Now, in conclusion. The best accounting system ever devised will not give good results without a first-class personnel behind it and that means from the Chief Accountant down to the lowest clerk on the job. Such men should be picked for their honesty and willingness to work. I have always said "Give me a man or woman who is honest, has fair intelligence, willing to work and has a sense of humor, then I will be satisfied that such employees will take an interest in their jobs and turn out good work." Good working conditions and fair play will keep those employees with you for years, provided they are given a chance to go up the ladder of responsibility.

## Accounting as a Career

By Phil Glanzer, Toronto

A person unfamiliar with the field of accountancy might conclude that its purpose is to maintain a record of financial transactions,—a history of things that have taken place. Such a conclusion would fail to recognize the definite influence of accountancy upon the future—the intelligent planning of a course to business profits.

Planning is important even in private matters. In contemplating a trip, it is advisable to gather information—roadmaps, time-tables, estimates of cost and other details so that the itinerary may be intelligently planned. In building a house the plans are carefully studied, cost estimates are obtained, and the finished structure is visualized before the ground is broken. And so it is in a modern business—the financial and operating policies are carefully studied before they are adopted. Business wants to know where its policies will lead and what will be their result, both from the standpoint of working capital and profits. This understanding and study is but one phase of the broad field of accountancy.

Elementary accounting consists of recording of business transactions—common bookkeeping. This is an interesting and exacting process but represents a field in which there is a great deal of competition since the principles of bookkeeping can be learned in high schools and business colleges everywhere. It is, therefore, a common occupation within the reach of great numbers of persons without extensive study or experience. It is not to be considered as a goal to which one interested in accountancy should aspire, but rather as an initial step in a field in which natural aptitude, study and hard work combine to form a profession of unusual interest.

The accounting officer of a business is an indispensable aid to management. His work, giving him in most cases an intimate knowledge of the operations and conditions of a concern, makes him feel the natural responsibility of being prepared to offer sound and constructive recommendations on matters of organization, method and policy. He sees with the eyes of good management and thinks in terms of finance and economy, with definite objectives. He keeps abreast of the new and better ways of doing things. He knows how to apply sound principles to many departments of business—purchasing, production, marketing, finance, and it is to him that business looks for guidance in matters relating to taxation and government.

The life and vitality of all business is profit. It is the compelling interest in every transaction; the dominant thought in the smallest and the greatest commercial enterprise. It takes the measure of administrative ability. It finances growth and progress. Real profit begins where losses cease. The profit developed by the accountant's services is in a large measure the elimination or avoidance of losses—the wastes, leaks and mistakes—due to ignorance and guesswork. Accountancy teaches the lesson that true success in business is not a matter of pinching pennies to the end that desirable policies cannot be followed and necessary activities will be cramped; that it is the product of genuine usefulness, improvement and conservation.

Modern business does not embark blindly in the pursuit of profits.

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It sets its sails to the course which its accounting department has charted and proceeds with intelligence and forethought to the accomplishment of definite objectives. In the purchasing of materials, there is careful planning of what will be required in the production of certain quantities, thus eliminating the loss from unused materials, or delays in production due to inadequate supplies. In the production of merchandise, there are predetermined estimates of all elements of cost so that management may know what result may be expected from each operation, and provision is made to share the savings and economies with employees who make them possible.

In marketing, accountancy makes its contribution through a study of economical methods of distribution and by carefully surveying the marketing area to determine where sales efforts can be expended with the greatest assurance of profitable results.

Through the course of operations there must be intelligent planning in the use of working capital so that the business will be adequately financed at all times. Management should know in advance just what capital will be available and how it may be most economically employed. There are situations which call for the application of accounting principles—principles which recognize no limitations in their usefulness except the resourcefulness and ingenuity of the persons who have command of the sources of vital statistics with respect to business transactions.

Most businesses depend primarily upon their own accounts for constructive co-operation, but business executives recognize the benefits to be obtained by supplementing these services with the assistance of public accountants. The function of the public accountant is to serve business concerns in general as an impartial and trustworthy outsider. He establishes or improves the accounting systems or procedure of his clients, ascertains and certifies to their financial condition so that bankers and others may place greater reliance upon such statements.

The public accountant should be a business advisor who can appraise the things which contribute to success or failure in business operations. He gives counsel in financial matters—the ways and means of obtaining capital—in forms of business organization, in problems concerning employee relationships, and in matters relating to governmental regulation and taxation.

A public accountant usually aspires to become "Certified" that is, to submit to an examination, now given periodically in every state of the Union and Canada, and upon satisfactory completion, to receive a certificate that he is a "Certified Public Accountant." Many accountants in private positions also prepare for such examinations and receive the "C.P.A." degree. A Certified Public Accountant is recognized by the public as one expertly skilled in his profession, and his testimony as an expert is usually accredited by a court without further qualification.

Reference is made to the activities of the accountant and indications, but too briefly perhaps, given to the important position which an accountant occupies in modern business. It would be well to consider at this point the qualifications which a person should possess to achieve success in the field of accountancy.

A pleasing personality plays an important part in success in any occupation and accountancy is no exception. The ability to secure the co-operation of others and to join enthusiastically in the plans of others

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should not be overlooked. Many a good plan owes its success or failure to team work in its execution. In the field of public accountancy personal qualifications are particularly important. The public accountant must have a pleasing approach; he should inspire confidence; he must have vision and imagination; he must have the ability, in talking or writing, to express his thoughts, observations and suggestions in clear and simple language.

Business men and bankers cannot afford to repose confidence in public accountants who are unworthy of it. Character, ability, and industry are sought and must be demonstrated. These qualities contribute to a man's success in any field. In public accountancy they are indispensable to success. Without them, failure is swift and certain. Men lacking courage and the love of hard work, and realizing the demands of public accountancy, will shrink from submitting themselves to its acid test.

Of course, a natural liking for figures is essential. Every phase of accountancy, is related to figures in some respect. Without a natural interest in figures, the work of the accountant would be a burden, indeed.

The equipment of an accountant should include familiarity with such subjects as economics, finance, business organization, business law, statistics, and taxation.

Any person who aspires to success in the field of accountancy must expect to devote much time to study. This is necessary not only in acquiring a broad foundation in accounting theory, but the knowledge so gained must be nourished with current material from publications, new laws and professional activities.

Accounting theory is comparable in some respects to the rules of grammar and literary composition. The writer learns the rules, then after much practice and experience, he really knows how to use them and how to write. In accountancy, rules and theory are indispensable and must be learned. But they are guides, not laws—not substitutes for ability. An accountant must be resourceful enough to rise above rules and theory when common sense demands it. Lazy minds learn theory and become slaves to it. Business does not pay for a knowledge of accounting theory, but is interested only in the ability to use the knowledge skillfully.

Any person contemplating entering the field of accountancy would naturally be concerned with its future. What promise for service does it offer? Of encouragement in this direction is the fact that accountancy is one of the newer professions. Most of the recognition it has received has been within the last twenty-five years. The World War, with its government contracts and taxation, provided the impetus which has gained momentum through an appreciation of the possibilities of intelligent planning and control in business. This has become even more evident during the second World War.

Notwithstanding this substantial progress, there are still thousands of concerns in this country, large and small, who seriously need adequate accounting but are ignorant of, or blind to, its value. Few of them know their cost of doing business or have more than a vague idea of their financial condition. The innovations in accounting methods within the last few years are quite unknown to most concerns. Improved methods of computing costs of production and the control of budgeting of operations wait on their doorsteps.

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Aside from the important developments within business itself, creating a demand for accounting ability, there has been a decided trend toward increased governmental regulation during this period of war. The Interstate Commerce Commission in the United States, the Wartime Prices and Trade Board in Canada, the Office of Price Administration in the United States, the Department of Munitions and Supply in Canada—government agency after government agency are constantly enlarging upon their demands for experienced accountants and for reports from business itself.

The trend in accountancy is toward greater responsibility in the formulation of business policies. Business has come to a greater appreciation of the value of the things which accountancy has offered and is drawing upon this field more and more.

The future of an accountant lies in the increased importance which his services assume and his rewards are usually in proportion to the value of his contribution. This is true both in private employment as well as in the service of a public accounting firm.

Then, too, as the ability and experience of the individual increases, there come opportunities for important executive positions in business concerns. Many of the ablest executives in business today received part of their training in accounting positions and many of the important business executives of tomorrow are engaged in accountancy now. A substantial part of the "alumni" of any accounting firm is represented by presidents, vice-presidents, treasurers, comptrollers, and other executives in large industrial and commercial concerns. These men attribute their success largely to the training received in public accountancy, wherein knowledge of the latest methods of internal organization and ability to analyze results were important features of their work.

The road which a person travels to success in any profession is marked with sacrifices and hard work. Accountancy is no exception. The period of education is continuous and many of the hours which others spend in personal pleasures must be spent by the accountant in study—in keeping informed of the developments in business and finance. In public accountancy, particularly, there is no regularity of working hours. The convenience of the accountant must be subordinated to the interest of his client. During the winter and early spring months of every year, it is a normal condition for the public accountant to work under high pressure ten or twelve and often fourteen hours a day. A stint on Sundays and holidays is frequently required. Most companies make their annual inventory computations and close their books at the end of the calendar year and require their audited statements for stockholders' meetings and for tax purposes in February, March and April. The necessity for working long hours without sacrificing thoroughness and accuracy means a mental and nervous strain that not all men are willing to stand—or able to stand.

Public accountancy also requires considerable travel and an accountant is sometimes away from his home for periods ranging from several days to several weeks at a time, depending upon the nature of the engagement. Frequently it becomes necessary for important work to be completed at a definite time and it is a well established rule in the profession that no personal considerations may interfere with the completion of the assignment, whatever sacrifices or inconveniences this may entail.

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However, the work of an accountant is not without its pleasant aspects. The very nature of the duties of an accountant offers a constant challenge to his ingenuity and resourcefulness. His success is rich in the thrills of achievement. His duties keep him abreast of the current developments in business and government. He becomes absorbed in matters relating to economics and taxation and can usually be classed among those in the community who are best informed in business matters.

We hear a great deal to-day concerning the over-crowding of professions and persons sometimes hesitate to prepare for a field into which great numbers are now entering. Our large universities are turning out graduates each year who seem to find it increasingly difficult to establish themselves in their chosen fields. It is my feeling, however, that this should not deter a person who is willing to expend the time and effort to rise above the average. The field of accountancy is crowded at the bottom since most persons are content with the advantages easiest to obtain. The person who is not satisfied to compete with others of limited knowledge and ability and will put forth the necessary effort to rise above them, will find a wide field for advancement with financial compensation commensurate with the importance of the service he is performing. I should discourage no one with the natural qualifications from entering the field of accountancy, as it offers an interesting and ever-expanding opportunity.

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